

Wired at Webcor

The builder counts on the Net to keep it ahead of the pack

At first glance, Parkside Towers in San Mateo, Calif., looks like any other commercial construction site from the past half-century: Cranes lift I-beams onto a two-story concrete shell. A backhoe claws at a pile of dirt. Workers wearing hard hats slog through thick, black mud hauling galvanized steel rods. But peek in the back pockets of some of those workers, and you'll find Palm computers. In the cluster of trailers that serves as the on-site office, there's a high-speed connection to the Internet. All around San Francisco Bay, architects, engineers, and contractors are logging on to a Web site created especially for the construction job. "Using technology is the only way we can keep pace," says Andrew J. Ball, president of Webcor Builders Inc., the general contractor for the project. "You can't afford to slow down."



PHOTO BY MARK ESTES

Ball: "I couldn't believe we created these drawings electronically but couldn't transmit them electronically."

In a risk-averse industry--with traditions dating from the pyramids--San Mateo-based Webcor's embrace of technology makes it stand out from other builders. Thanks in large part to 46-year-old Ball's love of technology; Webcor uses everything from wireless devices to customized software to help the dozens of partners on a project communicate with one another. Ball gives Web-linked Palm handheld computers to all new customers so that they will have easy access to current info on a project--from delays to budget forecasts to weather reports. And the data connections and Web sites for each of the 40 or so jobs Webcor works on at any time give architects, engineers, and plumbing subcontractors alike instant access to complex drawings.

That sort of innovation is almost unheard of in the \$2.3 trillion global construction industry. Sure, builders use cell phones, faxes, and computer systems in the corporate office. But they hardly push the envelope on technology. "It's an industry that's very pragmatic," says Carl Bass, president and CEO of Buzzsaw.com Inc., a San Francisco e-commerce startup that serves the building trades. "You have to prove that there's value" in technology.

For Webcor, the value is clear. And others in the industry would do well to follow suit if they hope to build a strong future. Webcor, which expects to see \$800 million in revenue next year, estimates it should soon reduce building

costs by as much as 2% to 3%. Already, the company saved about \$10,000 per month in reduced overhead and downtime on a recent \$20 million project. In an industry where profit margins range from 2.5% to 10%, that can spell the difference between the red and the black.

The time saved is just as important. Webcor initially estimated that the 236-room Serrano Hotel in San Francisco would take 12 to 14 months to complete. Working with subcontractors who adapted quickly to Webcor's technological innovations, the builder could trim the time needed for approvals from developers and architects and could schedule crews more efficiently. The result: Webcor completed the Spanish Revival hotel in just 10 months. Not only did that save Webcor more than \$100,000 in overhead, but it also gave the Serrano's owners a boost: They got a four-month head start running the hotel, which meant as much as \$1.5 million a month in unexpected operating revenues.

Webcor's innovation hasn't gone unnoticed by its clients. Working with Webcor, commercial developer Spieker Properties can start construction just 20 days after a project wins approval from the local building department. Industrywide, it usually takes two months to put together schedules for subcontractors and to work through final modifications to the blueprints, says David Wilbur, Spieker's vice-president. With everyone tapping into the building project's Web site, the electricians, plumbers, and other subcontractors can more easily be scheduled to work around each other. And the architects, engineers, and owners can more quickly approve design changes. "We're seeing decisions that took days now take hours," Wilbur says.

Ball started mingling computers and construction nearly 20 years ago. As a project manager on the Hilton Hotel in Irvine, Calif., in 1981, he designed a simple program for tracking orders and requests for scheduling and budgeting information on his PC. At the time, such logs were written out longhand in a single copy that never got circulated. Ball printed his computer logs and passed them out at meetings--which, for the first time, let everyone involved see where construction was falling behind schedule and why. "I realized the power of the computer then," Ball says.

That realization spurred Ball to press for more innovation. He had long dreamed of being able to zap computer-generated blueprints to owners, architects, and others over the Internet, rather than printing them out and shipping them by courier. Ball thought he could save days--even weeks--if everyone on a project could simply look at the blueprints online and sign off on

any changes. "I couldn't believe we created these drawings electronically, but couldn't transmit them electronically," Ball says.

In 1994, he merged his company, A.J. Ball Construction, with Webcor and became president of the aptly named company. But the "web" element in the name is pure coincidence: W, E, and B are the initials of the 29-year-old company's founders.

In 1995, at a construction industry convention in San Diego, Ball stumbled across Blueline Online Inc., a tiny, unfunded startup that promised to revolutionize the building industry by linking contractors, architects, and others over the Web. Ball promptly volunteered Webcor as guinea pig and ponied up \$50,000 in seed money. Over the next several years, Webcor employees spent thousands of hours working one-on-one with the Palo Alto startup, now known as Cephren Inc. "They're always pushing us further," says Robert Majteles, Cephren's chief executive. One important outcome of that collaboration: Ball's dream program allowing blueprints to be shipped electronically to everyone in a project.



At Spieker Properties, Vice-President Wilbur finds "decisions that took days now take hours"

While that kind of innovation plays well with Webcor's clients, its construction foremen, architects, and subcontractors have had a harder time making the leap. "My project managers and engineers said, 'Why do we need to do this? It doesn't work,'" Ball recalls. "I said nothing's going to work unless you put time into it." Large construction projects involve dozens of independent businesses--developers, architects, engineers, and subcontractors for everything from windows to plumbing--who come on and off a site over the course of months or even years. That means Ball has to lay a lot of groundwork educating new players about the importance of technology. When subcontractors seem reluctant to try out Webcor's online tools, the company has an "enforcer" on site who makes sure they learn the system. And several architectural firms Ball works with resisted installing the high-speed data connections needed to transmit blueprints. Listening to Ball's arguments about the time savings such data lines could create, the firms relented and finally installed them.

In spite of a shakeout among companies that are focusing on bringing Internet technology to the building trades, Ball is convinced that such efforts will

continue to pay off. Sure, he says, construction-oriented e-commerce startups are struggling. For example, Redladder.com is shutting down, and BuildNet.com in October canceled its initial public offering. Even Cephren--in which Webcor owns a small stake--is merging with its chief rival, San Francisco's Bidcom Inc. Still, Ball remains bullish because the industry needs the innovation to prosper. "Our bet is that somebody with this type of technology is going to succeed," he says.

The bet means Ball is continuing to press his partners for ever more progress. As Webcor crews break ground on Palm Inc.'s new \$200 million campus in Santa Clara, Ball sees the project as a chance to boost the capability of the Palm computers his customers and employees use. To date, the Palm has been able to handle only text-based information such as schedules and construction progress. Now, Ball is pushing Palm and Cephren to make blueprint details, construction photos, and other graphical information accessible. For Webcor, it seems, there's more than one way to break ground.

By MARGARET YOUNG